

# DS POWER 200SH

## 10-20kVA

3-Level Technology

IGBT Rectifier

DSP Control



TOWER



UPS ONLINE

SERVICE /  
TECH. SUPPORT

ECO FRIENDLY



0.9

POWER FACTOR

DS Power 200SH UPS appear as a cost effective and smaller footprint UPS. Using the 3 level topology and control system, this series UPS have the latest DSP technology to be programmed to suit a wide variety of electrical environments without impeding its performance. Efficiency, reliability and functionality are enhanced to levels unattainable with the old analogue technology. This technology does not only create significant increase in MTBF, but the capability of DSP to accurately manipulate signals at very high speed permits all the UPS subsystems to be controlled with greatly increased precision.

## GENERAL SPECIFICATIONS

- Smaller footprint
- 3 level topology
- Transformerless UPS topology
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency up to 94%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 192 events memory (192 events 14.400 alarms)
- Clock and calendar (battery supported)
- Automatic battery test ,remaining battery time indicator
- Temperature compensated charge system (optional)
- 1 RS232 serial port and 3 dry contact outputs (+2 optional)
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Full digital structure
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency range
- Output DC leakage protection
- Separate DSP for PFC 3 level battery protection
- Charge / discharge current indicator
- Advanced remote control features
- Manufactured under CE,ISO9001,ISO14001,TSE and GOST international standards
- 2 years warranty

## TECHNICAL SPECIFICATIONS

MODEL	DS210SH	DS215SH	DS220SH
Power (kVA)	10	15	20
<b>INPUT</b>			
Voltage	380/400 VAC 3P + N + G $\pm$ 20% (415VAC +15%, -25% optional)		
Frequency	50Hz / 60Hz, $\pm$ 10%		
Power factor	$\geq$ 0.98		
THDI (at 100% load)	$\leq$ 7% (depends on mains input conditions)		
By-pass voltage	220/230 VAC 1P+ N $\pm$ 10%		
Voltage distortion	$\leq$ 10%		
Protection	Fuses, Voltage & Frequency Tolerance		
<b>OUTPUT</b>			
Power (kW)	9	13.5	18
Power factor	0.9		
Voltage	220/230 VAC 1P+ N $\pm$ 1%		
Frequency	50Hz / 60Hz		
Frequency tolerance	Line synchronized: $\pm$ 2% / Free running: $\pm$ 0.1%		
Efficiency	up to 94%		
Crest factor	3:1		
Overload protection	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass		
Protection	Fuses, Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting		
Voltage THD	$\leq$ 2% (at 100% linear load)		
<b>BATTERIES</b>			
Type	VRLA AGM / GEL / NiCd		
Number of batteries	2X30 ( $\pm$ 30) batteries		
Float charging voltage	$\pm$ 405 VDC (adjustable)		
End of discharge voltage	$\pm$ 300 VDC (adjustable)		
Battery cabinet	External (attached cabinet at the bottom of UPS)		
Battery ambient temperature	25°C		
Battery protection	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)		
Automatic battery test	Standard: every 72 hours (adjustable)		
<b>GENERAL</b>			
Standards	EN62040-1, EN62040-2, EN62040-3		
User interface	4 lines LCD panel, Mimic leds, 5 vector buttons, buzzer		
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time		
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter		
Communication	RS232 serial port, 4 standard DRY contact alarm relays		
Inputs	EPO input		
Genset kit	Standard (programmable)		
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)		
Alarm logging	Standard: with time & date 512 events		
Protection	Power module over temperature, Over current, Temperature high alarms		
Operating temperature	0°C - 40°C		
Protection degree	IP20		
Relative humidity	90% max. (non-condensing)		
Altitude	< 1000m. above sea level		
Acoustic noise	< 55 dBA	< 57 dBA	
Weight (kg)	47.5	49.5	51
Dimensions (mm) HxWxD	700x300x770 (without batt.) / 1000x300x800 (with 5ah batt.) / 1170x300x800 (with 7-9ah batt.)		
<b>OPTIONS</b>			
Different input / output voltage	Please ask		
Adaptors	SNMP, MODBUS, RS485, Remote panel		
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 50-100-200 clients		